

RECEIVED
CENTRAL FAX CENTER
DEC 03 2008

Serial No. 09/870,009
Docket No. JP920000069US1

2

AMENDMENTS TO THE CLAIMS:

Please cancel claim 19 without prejudice or disclaimer.

1-4. (Canceled)

5. (Currently amended) A DNA molecule for an organism, said DNA molecule having embedded information, and comprising:

a gene portion including a value-added gene which is provided in said gene portion by a source through one of selective breeding, cultivation and gene manipulation;

a portion which is other than said gene portion; and

a watermark comprising a plurality of nucleotide sequences ~~sequence which is not naturally occurring in said DNA and~~ which are is embedded in said portion which is other than said gene portion, and is correlated with ~~comprises~~ source identification information which identifies said source of said value-added gene in said gene portion,

wherein a number of nucleotide sequences in said embedded plurality of nucleotide sequences is greater than an appearance frequency of said nucleotide sequences which naturally occur in said organism.

6-7. (Canceled)

8. (Currently amended) A DNA molecule for an organism comprising:

a watermark comprising a plurality of nucleotide sequences that are at least one special sequence which is not naturally occurring in said DNA and embedded in a portion of said DNA molecule is included as a part of a nucleotide sequence,

wherein said plurality of nucleotide sequences at least one special sequence is correlated with ~~comprises~~ source identification information which identifies the source of a value-added gene which is included in a gene portion of said DNA molecule by the source through one of selective breeding, cultivation and gene manipulation, and

Serial No. 09/870,009
Docket No. JP920000069US1

3

~~wherein said at least one special sequence is embedded in said DNA~~

wherein a number of nucleotide sequences in said embedded plurality of nucleotide sequences is greater than an appearance frequency of said nucleotide sequences which naturally occur in said organism.

9. (Currently amended) The DNA molecule according to claim 8, wherein said plurality of nucleotide sequences at least one special sequence comprises a plurality of sequences embedded at predetermined locations of said DNA molecule.

10. (Currently amended) The DNA molecule according to claim 8, wherein said plurality of nucleotide sequences at least one special sequence comprises a plurality of sequences having a plurality of types of patterns embedded at predetermined locations of said DNA molecule.

11. (Currently amended) A nucleotide sequence in a DNA molecule for an organism, comprising:

a watermark comprising a plurality of nucleotide sequences which is correlated with source identification information which identifies a source of a value-added gene in a gene portion of said DNA molecule, said value-added gene being provided in said gene portion by said source through one of selective breeding, cultivation and gene manipulation,

wherein said information is embedded in said DNA molecule ~~and is not naturally occurring in said DNA, and~~

wherein a number of nucleotide sequences in said plurality of nucleotide sequences is greater than an appearance frequency of said nucleotide sequences which naturally occur in said organism.

12. (Currently amended) A cell in an organism, said cell having a DNA molecule comprising:

a gene portion including a value-added gene which is provided in said gene portion by a

Serial No. 09/870,009
Docket No. JP920000069US1

4

source through one of selective breeding, cultivation and gene manipulation;

a portion which is other than said gene portion; and

a watermark comprising a plurality of nucleotide sequences ~~sequence~~ which ~~are~~ is not naturally occurring in said DNA and which is embedded in said portion other than said gene portion, and is correlated with ~~comprises~~ source identification information which identifies said source of said value-added gene in said gene portion.

wherein a number of nucleotide sequences in said embedded plurality of nucleotide sequences is greater than an appearance frequency of said nucleotide sequences which naturally occur in said organism.

13-14. (Canceled)

15. (Currently amended) A DNA molecule for an organism, comprising:

a first portion comprising a value-added gene which is provided in said first portion by a source through one of selective breeding, cultivation and gene manipulation;

a second portion which is other than said first portion; and

a watermark comprising a plurality of at least one nucleotide sequences ~~sequence~~ which ~~are~~ is not naturally occurring in said DNA and is embedded in said second portion, and which is correlated with information which identifies said source of said value added gene in said first portion.

wherein a number of nucleotide sequences in said embedded plurality of nucleotide sequences is greater than an appearance frequency of said nucleotide sequences which naturally occur in said organism.

16. (Canceled)

17. (Currently amended) The DNA molecule according to claim 15, wherein said plurality of nucleotide sequences ~~sequence~~ is embedded in said second portion such that said plurality of

Serial No. 09/870,009

5

Docket No. JP920000069US1

nucleotide sequences sequence and said second portion are merged into a single molecule.

18. (Currently amended) The DNA molecule according to claim 15, wherein said plurality of nucleotide sequences ~~at least one nucleotide sequence~~ comprises a plurality of sequences having a plurality of types of patterns embedded at predetermined locations in said second portion.

19. (Canceled)

20. (Currently amended) The DNA molecule according to claim ~~15~~ 19, wherein said plurality of nucleotide sequences comprises different nucleotide sequences.

21. (Currently amended) The DNA molecule according to claim 15, wherein said plurality of nucleotide sequences ~~at least one nucleotide sequence~~ is copy tolerant.

22. (Currently amended) The DNA molecule according to claim 15, wherein said plurality of nucleotide sequences ~~at least one nucleotide sequence~~ is embedded at a random location in said second portion.

23. (Currently amended) The DNA molecule according to claim 15, wherein said plurality of nucleotide sequences ~~at least one nucleotide sequence~~ and is not naturally generated through gene mutation.

24. (Currently amended) The DNA molecule according to claim 15, wherein said plurality of nucleotide sequences ~~at least one nucleotide sequence~~ comprises one of a restrictive enzyme identification sequence and a promoter.

25. (Currently amended) The DNA molecule according to claim 15, wherein said plurality of nucleotide sequences ~~at least one nucleotide sequence~~ is detectable using a nucleotide sequence

Serial No. 09/870,009
Docket No. JP920000069US1

6

that is complementary to said at least one nucleotide sequence.

26. (Currently amended) The DNA molecule according to claim 15, wherein said plurality of nucleotide sequences ~~at least one nucleotide sequence~~ is embedded at a predetermined location in said second portion.

27. (Currently amended) The DNA molecule according to claim 15, wherein said plurality of nucleotide sequences ~~sequence~~ is correlated with said source identification information.

28.- 29.(Canceled)

30. (Currently amended) The DNA molecule according to claim 5, wherein said source identification information comprises a nucleotide sequence which corresponds to said source of said value-added gene such that said source is identifiable to a party examining said DNA molecule.

31. (Currently amended) The DNA molecule according to claim 5, wherein said value-added gene comprises a protein code sequence and transcription control information for said sequence.

32. (Currently amended) The DNA molecule according to claim 5, wherein said portion which is other than said gene portion comprises a portion of said DNA molecule which does not store a protein code sequence and transcription control information for said sequence.

33. (Currently amended) The DNA molecule according to claim 5, wherein said plurality of nucleotide sequences ~~sequence~~ of said watermark is embedded by said source in said portion which is other than said gene portion.

34. (Currently amended) The DNA molecule according to claim 5, wherein said gene portion

Serial No. 09/870,009

7

Docket No. JP920000069US1

is transcribed into RNA, and said portion other than said gene portion is not transcribed into RNA.

35. (New) The DNA molecule according to claim 5, wherein said plurality of nucleotide sequences comprises a nucleotide sequence that has been confirmed to be safely embedded in said DNA molecule for said organism.